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SPECIFICATION FOR PETRI DISHES

(First Revision)

UDC 542.231.5

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INDIAN STANDARDS INSTITUTION
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 1

September 1972

AMENDMENT NO. 2 JULY 2007
TO
IS 2626 : 1972 SPECIFICATION FOR PETRI DISHES

(First Revision)

(*Page* 6, *clause* **3.6**) — Substitute the following for the existing clause

'**3.6 Limit of Alkalinity** — When graded according to the method prescribed in IS 2303 (Part 1/Sec 1) 1994*, the petri dishes shall conform to Class HGB 1 of the glass '

(*Page* 6, *footnote marked* *) — Substitute the following for the existing

*Grading glass for alkalinity Part I Hydrolytic resistance, Section 1 Hydrolylic resistance of glass grains at 98 ??? Method of test and classification (*first revision*)'

(*Page* 6, *clause* **4.1.1)** — Substitute the following for the existing clause

'**4.1.1** *BIS Certification Mark*

The Pet???dishes may also be marked with the Standard Mark

4.1.1.1 The use of the Standard Mark is governed by the provisions of *Bureau of Indian Standards Act,* 1986 and the Rules and Regulations made thereunder The details of conditions under which the licence tor the use ot Standard Mark may be granted to manufactuters or producers may be obtained from the Bureau ot Indian Standards

(CHD 10)

Reprography Unit, BIS New Delhi, India

AMENDMENT No. 1 AUGUST 1973

TO

IS : 2626-1972 SPECIFICATION FOR PETRI DISHES

(First Revision)

Corrigendum

(*Page* 5, *Table* 1, *col* 3, *against Sl No.* (iii)] — Substitute '103 ± 1' *for* '130 ± 1'.

(CDC 33)

Printed at Neelkamal Printers, Delhi 6, India

IS : 2626 - 1972

Indian Standard
SPECIFICATION FOR PETRI DISHES
(First Revision)

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(*Continued on page* 2)

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Indian Standard

SPECIFICATION FOR PETRI DISHES

(First Revision)

0. FOREWORD

0.1 This Indian Standard (First Revision) was adopted by the Indian Standards Institution on 6 January 1972, after the draft finalized by the Laboratory Glassware and Related Apparatus Sectional Committee had been approved by the Chemical Division Council.

0.2 This standard was first published in 1963. However, having felt the necessity to rationalize the sizes of petri dishes and to cover dishes with beaded rims also, the Sectional Committee, responsible for the preparation of this standard, decided to revise it. In this revision, which relates to petri dishes made by blowing process, attempt has been made to specify limits of unavoidable defects in various parts of the ware to ensure quality of the product.

0.3 This standard has clause **4.2** which provides for agreement between the purchaser and the supplier.

0.4 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard prescribes the requirements and methods of sampling and test for glass petri dishes meant for chemical and bacteriological work in scientific laboratories.

2. TERMINOLOGY

2.1 For the purpose of this standard, the definitions given in IS : 1382-1961† shall apply,

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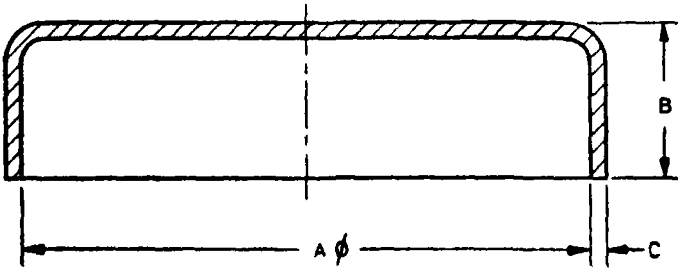
*Rules for rounding off numerical values (*revised*).

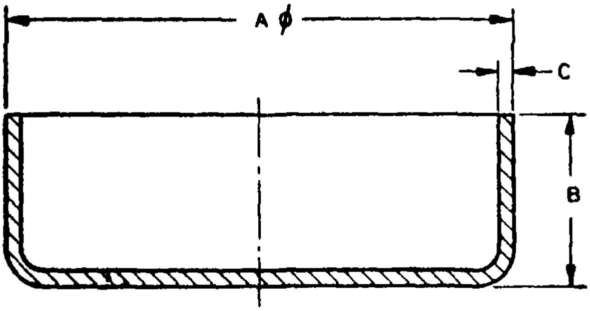
†Glossary of terms relating to glass industry.

3. REQUIREMENTS

3.1 Pattern — The pattern of petri dishes shall he as illustrated in Fig. 1.



TOP DISH



BOTTOM DISH

FIG. 1 PETRI DISHES

3.2 Material and Workmanship — Petri dishes shall be made of transparent glass not having any pronounced tint. They shall be suitably annealed and, as far as possible, free from mould marks and waviness. They shall be free from cords and checks.

3.2.1 The dishes shall be fairly free from defects, such as knots, seeds, bubbles and blisters. Such defects Shall be permitted in a petri dish up to the limits given below:

Stones — Size not to exceed 1 mm, and number also not to exceed 1. There shall be no stone at the base of the bottom dish.

Knots — Size not to excred 2 mm, and number also not to exceed 2.

Seeds and Bubbles — Number not to exceed 4.

Blisters — Number not to exceed 1, that too on side only.

3.3 Constraction and Finish — Petri dishes shall be regular in shape and smoothly finished. The bases of both bottom and top dishes shall be, as far as possible, in one plane surface and the sides shall be perpendicular to the bases. The bases may be given a slight crown to prevent rocking. The edges of the top and bottom dishes shall be smooth and in a plane parallel to their bases. If the edges are finished by burn-off process there shall not be any tear-drop extending above the plane of cut-off in bottom dish. In top dish such protrusion up to 1 mm is permissible.

3.3.1 The inside depth at any two points on the base shall not vary by more than 1.5 mm.

3.4 Nominal Sizes — Petri dishes shall be made in the following nominal sizes:

50, 75, 100, 125, 150 and 200 mm.

NOTE — Nominal sizes refer to the external diameter of the bottom dishes.

3.5 Dimensions — The recommended dimensions of petti dishes are given in Table 1.

TABLE 1 RECOMMENDED DIMENSIONS FOR PETRI DISHES

SL No.	NOMINAL SIZE	TOP DISH			BOTTOM DISH		
		Internal Diameter, A	External Height, B	Wall Thickness, C *Min*	External Diameter, A	External Height, B	Wall Thickness, C *Min*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	mm	mm	mm	mm	mm	mm	mm
i)	50	53±1	15^{+1}_{-0}	1.0	50±1	17^{+1}_{-0}	1.0
ii)	75	78±i	15^{+1}_{-0}	1.0	75±1	17^{+1}_{-0}	10
iii)	100	130±1	15^{+1}_{-0}	1.5	100±1	17^{+1}_{-0}	1.5
iv)	125	128±1	17^{+1}_{-0}	1.5	125±1	20^{+1}_{-0}	1.5
V)	150	153±1	17^{+1}_{-0}	1.5	150±1	20^{+1}_{-0}	1.5
vi)	200	203±1	20^{+1}_{-0}	1.5	200±1	20^{+1}_{-0}	1.5

NOTE — In any pair of petri dishes the difference between the internal diameter of the top dish and external diameter of the bottom dish shall be between 2 to 4 mm.

3.5.1 In case of petri dishes with beaded edges the diameter shall be measured at the bead.

3.6 Limit of Alkalinity — When graded according to the method prescribed in IS : 2303-1963*, the perti dishes shall conform to Type 1 of the glass.

3.7 Autoclave and Hot Air Sterilizer Test — The petri dishes shall pass the test prescribed in Appendix A.

4. MARKING AND PACKING

4.1 Marking — Each petri dish shall be permanently and legibly marked on its side with the following information:

a) Maker's name or registered trade-mark, if any; and
b) Nominal size.

4.1.1 The petri dishes may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act, and the Rules and Regulations made thereunder. Presence of this mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard, under a well-defined system of inspection, testing and quality control during production. This system, which is devised and supervised by ISI and operated by the producer, has the further safeguard that the products as actually marketed are continuously checked by ISI for conformity to the standard. Details of conditions, under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

4.2 Packing — The petri dishes shall be packed as agreed to between the purchaser and the supplier.

5. SAMPLING

5.1 Representative samples of petri dishes shall be drawn and adjudged for conformity as prescribed in IS : 4426-1967†.

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*Method of grading glass for alkalinity.

†Methods of sampling laboratory glassware and medical glass instruments.

APPENDIX A

(*Clause* 3.7)

AUTOCLAVE AND HOT AIR STERILIZER TEST

A-0. PRINCIPLE

A-0.1 This test consists of subjecting the petri dishes to a saturated steam pressure of 1.05 kgf/cm^2 for 2 hours and subsequent heating in hot air at 160°C for 3 hours. It measures the resistance of glass to saturated steam under pressure and hot air.

A-1. REAGENTS

A-1.1 Dilute Hydrochloric Acid — one percent (*v/v*).

A-2. PROCEDURE

A-2.1 Clean the requisite number of petri dishes thoroughly with cold dilute hydrochloric acid using, if necessary, a small pad of clean cotton wool to remove all traces of deposit from the surface of the glass, taking care to avoid scratching the surface. Then rinse with sufficient volume of freshly boiled and cooled distilled water to remove all the acid. Drain away all the adhering water by standing the two parts separately with rims downwards in an inclined position for 5 minutes.

A-2.2 Place sufficient freshly boiled distilled water in the autoclave. Keep the petri dishes in the autoclave (both top and bottom separately) with rims downwards on the perforated plate of the autoclave. Place the lid of the autoclave in position and, with the valve open, heat the autoclave until steam is emitted freely from the valve and all air is displaced. Close the valve and heat in such a manner that the pressure increases steadily to 105 kgf/cm^2 in a period of about half an hour. This represents a temperature of about 121°C Maintain this pressure for 2 hours. Remove the source of heat and allow the autoclave to cool with the valve closed for half an hour. Carefully open the valve and allow the pressure to equalize with that of the atmosphere. Take off the lid of the autoclave, remove the dishes and allow them to dry with rims downwards.

A-2.3 Place the petri dishes (tops and bottoms separately) rims downwards on a perforated plate in a hot air sterilizer at 160°C for 3 hours. At the end of this period, remove the dishes from the sterilizer and allow to cool.

A-2.4 The petri dishes shall be considered to have passed the requirements of the test if they show no cracks, frosting, opalescence or iridescence.

INDIAN STANDARDS

ON

LABORATORY GLASSWARE

IS:	
870-1936	Graduated measuring cylinders
915-1953	One-mark graduated flasks
1117-1958	One-mark pipettes
1381-1959	Boiling flasks (narrow-necked)
1388-1959	Reagent bottles
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1590-1960	Glass filter flasks
1672-1967	Floating dairy thermometers (*first revision*)
1996-1902	Glass stopcocks
1997-1967	Burettes (*first revision*)
2480-1964	General purpose glass thermometers
2618-1963	Test-tubes
2G19-1971	Glassbeakers
2620-1963	Distilling flasks
2626-1972	Petri dishes (*first revision*)
2627-1963	Glossary of terms relating to liquid-in-glass thermometers
3055-1965	Clinical thermometers
3104-1965	Density hydrometers
3608-1966	Glass alcoholometers
4161-1967	Nessler cylinders
4162-1967	Graduated pipettes
4426-1967	Methods of sampling laboratory glassware and medical glass instruments
4529-1968	Glass tubes for medical thermometers
4610-1968	Glass tubes for general purpose and reference thermometers
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4849-1908	Rain measures
5165-1909	Interchangeable conical ground-glass joints
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5717-1970	Pyknometers
5725-1970	Psychlometers, unventilated (dry and wet bulb bygrometers)
6017-1971	Thermometer for whirling psychrometers
6052-1970	Glass condensers
6128-1971	Desiceators
6274-1971	Methods of calibrating liquid-in-glass thermometers
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